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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,602

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Tooru Inaguma

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7590

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EXAMINER

LAVILLA, MICHAEL E

ART UNIT

PAPER NUMBER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/535,602	<b>Applicant(s)</b> INAGUMA ET AL.	
	<b>Examiner</b> Michael La Villa	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5-10 and 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-10 and 36 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Objections***

2. Claims 8-10 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Regarding Claim 8, no aspect of the claimed article is physically a stainless steel material as set forth in Claim 1. Rather, what is claimed is an article that can be processed to produce the article of Claim 1.

### **Claim Rejections - 35 USC § 103**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
4. (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

6. Determining the scope and contents of the prior art.
7. Ascertaining the differences between the prior art and the claims at issue.
8. Resolving the level of ordinary skill in the pertinent art.
9. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1, 6-10, and 36 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shimizu et al. JP 4-350148. Shimizu et al. teaches a stainless steel foil of the claimed ingredients, wherein the foil is used for catalyst carrying honeycomb bodies for exhaust gas purification. P is taught as being present in the claimed amounts and for essentially the same reason as applicant's reasons.

As well, the examples use REM and the disclosure suggests La as well as individual or groups of lanthanides in the claimed relative amounts as suitable additives for essentially the same reason as applicant's reasons. Since Ce is readily identified as a lanthanide, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize La and Ce, as opposed to REM generally, in the foil of Shimizu since Shimizu readily envisages using this combination of elements as an alternative to REM. Shimizu et al. teaches making double-layered Al and stainless steel laminate, which is diffusion treated to obtain stainless steel foil of the claimed ingredients in the claimed relative amounts. See Shimizu et al. (paragraphs 12-18; and Table 1). Shimizu et al. may not exemplify the honeycomb body as claimed, but teaches that the foils of

Shimizu et al. are effective for this purpose. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the foils of Shimizu et al. as the claimed honeycomb body, as Shimizu et al. teaches that the foils are effective for this purpose. Shimizu et al. does not teach the specifically claimed thickness, but does teach 50 microns thickness. Shimizu et al. teaches sheets of any effective thickness can be prepared as desired. It would have been obvious to one of ordinary skill in the art at the time of the invention to prepare sheets of thicknesses slightly thinner than those exemplified because there is no patentable distinction to be discerned based on slight variations in shape through slight variation in thickness and because thinner foils can provide a lighter honeycomb body. It would have been obvious to one of ordinary skill in the art at the time of the invention to vary the thickness with the aluminum-coated substrates as well. It would be expected that the additional thickness of the aluminum layer, which would contribute at most 6 or 7 weight percent in the final article, would be small and that the resulting bi-layered laminate would meet the claim thickness requirements as well. With respect to Claim 9, Shimizu may not teach including the claimed alloying ingredients in the aluminum layer, but does teach that any ingredient element in the final composition of Shimizu et al. may be included in the aluminum alloy layer and that some of these claimed elements, such as Zr, for example, are present in the alloy of Shimizu et al. It would have been obvious to one of ordinary skill in the art at the time of the invention include these additional ingredients as alloying elements in the

aluminum layer of Shimizu et al. since Shimizu et al. suggests that this is an effective manner of introducing such elements into the final foil article.

11. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. JP 4-350148 in view of Sato et al. EP 0 497 992. Shimizu et al. is relied upon as above. Shimizu et al. does not teach the specifically claimed thickness, but does teach 50 microns thickness. Shimizu et al. teaches sheets of any effective thickness can be prepared as desired. Sato et al. teaches that foils of the claimed thickness are effective. See Sato et al. (Abstract; and page 4, lines 26-33). It would have been obvious to one of ordinary skill in the art at the time of the invention to prepare sheets of the claimed thickness, as Sato et al. teaches that foils of these thicknesses are effective for making honeycomb bodies used for the purpose of Shimizu et al. It would have been obvious to one of ordinary skill in the art at the time of the invention to vary the thickness with the aluminum-coated substrates as well. It would be expected that the additional thickness of the aluminum layer, which would contribute at most 6 or 7 weight percent in the final article, is small and that the resulting bi-layered laminate would meet the claim requirements.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. JP 4-350148 in view of Yamanaka et al. USPN 4,784,984. Shimizu is relied upon as above in the rejection of Claim 1. Shimizu et al. does not teach inclusion of Mg in the claimed amounts. Yamanaka et al. teaches that inclusion of Mg in the claimed amounts in a stainless steel foil in order to improve oxidation

resistance. See Yamanaka et al. (col. 4, lines 18-24; and Table 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Mg in the claimed amounts in Shimizu et al., as taught by Yamanaka et al., in order to confer superior oxidation resistance to the steel material of Shimizu as Yamanaka et al. teaches that this is an effective additive for this purpose.

***Response to Amendment***

13. In view of applicant's amendments and arguments, applicant traverses the section 112, second paragraph rejection of the Office Action mailed on 10 October 2007. Rejections are withdrawn.
14. In view of applicant's amendments and arguments, applicant traverses the section 102 rejection over Shimizu of the Office Action mailed on 10 October 2007. Rejection is withdrawn.
15. In view of applicant's amendments and arguments, applicant traverses the section 102 rejection over Emmerich of the Office Action mailed on 10 October 2007. Rejection is withdrawn.
16. In view of applicant's amendments and arguments, applicant traverses the section 103 rejection over Shimizu and the section 103 rejection over Shimizu in view of Sato of the Office Action mailed on 10 October 2007. Applicant argues that Shimizu does not teach adding Cu in the claimed amounts for improving brazing wettability, but Shimizu nevertheless includes copper in the claimed amounts. Applicant argues that Shimizu does not teach La, Ce, and P as

essential ingredients in example A7. P is taught as being present in the claimed amounts and for essentially the same reason as applicant's reasons. As well, the examples use REM, and the disclosure suggests La as well as individual or groups of lanthanides in the claimed relative amounts as suitable additives for essentially the same reason as applicant's reasons. Since Ce is readily identified as a lanthanide, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize La and Ce, as opposed to REM generally. Rejections over Shimizu are maintained as set forth above.

### ***Conclusion***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
18. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



Art Unit: 1794

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (571) 272-1539. The examiner can normally be reached on Monday through Friday.
20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael La Villa/  
Michael La Villa  
Primary Examiner, Art Unit 1794  
12 July 2008